

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/004413

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DELIASSUS S ET AL: "PCR-based analysis of the murine immunoglobulin heavy-chain repertoire" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL, vol. 184, no. 2, 18 August 1995 (1995-08-18), pages 219-229, XP004020989 ISSN: 0022-1759	1,2,4,24
Y	the whole document ----- -/--	3,5-23, 26-54

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

25 April 2005

Date of mailing of the international search report

10/05/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FEUCHTENBERGER M ET AL: "Semiquantitative and qualitative assessment of B-lymphocyte VH repertoire by a fluorescent multiplex PCR" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL, vol. 276, no. 1-2, 1 May 2003 (2003-05-01), pages 121-127, XP004422646 ISSN: 0022-1759	1,2,4,24
Y	the whole document	3,5-23, 26-54
Y	LIM A ET AL: "Combination of MHC-peptide multimer-based T cell sorting with the Immunoscope permits sensitive ex vivo quantitation and follow-up of human CD8<+> T cell immune responses" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL, vol. 261, no. 1-2, 1 March 2002 (2002-03-01), pages 177-194, XP004341278 ISSN: 0022-1759	1-54
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Y	COLLETTE A ET AL: "New methods and software tools for high throughput CDR3 spectratyping. Application to T lymphocyte repertoire modifications during experimental malaria" JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL, vol. 278, no. 1-2, July 2003 (2003-07), pages 105-116, XP004453168 ISSN: 0022-1759	1-54
Y	the whole document	
Y	PANNETIER C ET AL: "THE SIZES OF THE CDR3 HYPERVARIABLE REGIONS OF THE MURINE T-CELL RECEPTOR BETA CHAINS VARY AS A FUNCTION OF THE RECOMBINED GERM-LINE SEGMENTS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 90, May 1993 (1993-05), pages 4319-4323, XP002951502 ISSN: 0027-8424 cited in the application	1-54
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Y	ARSTILA T PETTERI ET AL: "A direct estimate of the human alphabeta T cell receptor diversity" SCIENCE (WASHINGTON D C), vol. 286, no. 5441, 29 October 1999 (1999-10-29), pages 958-961, XP001191021 ISSN: 0036-8075 cited in the application the whole document	1-54
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Y	DATABASE EBI 'Online! EMBL; Sequence 56 from US6300129 16 September 2003 (2003-09-16), LONBERG, N., KAY, R.M.: XP002281108 retrieved from EMBL accession no. AR369855 Database accession no. AR369855 the whole document	1-54
Y	DATABASE EBI EMBL; Sequence 7 from W00175091 29 October 2001 (2001-10-29), OHLIN, M. ET AL.: XP002281109 retrieved from EMBL accession no. AX268890 Database accession no. AX268890 the whole document & WO 01/75091 A (BIOINVENT INTERNAT AB ; CARLSSON ROLAND (SE); OHLIN MATS (SE); SODERLI) 11 October 2001 (2001-10-11)	1-54
Y	DATABASE EBI EMBL; Sequence 18 from W00175091 29 October 2001 (2001-10-29), OHLIN, M. ET AL.: XP002281110 retrieved from EMBL accession no. AX268901 Database accession no. AX268901 the whole document & WO 01/75091 A (BIOINVENT INTERNAT AB ; CARLSSON ROLAND (SE); OHLIN MATS (SE); SODERLI) 11 October 2001 (2001-10-11)	1-54

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	<p>DATABASE EBI EMBL; Sequence 146 from US6300129 16 September 2003 (2003-09-16), LONBERG, N. ET AL.: XP002281112 retrieved from EMBL accession no. AR369914 Database accession no. AR369914 the whole document</p>	1-54
Y	<p>DATABASE EBI EMBL; Sequence 350 from US6300129 16 September 2003 (2003-09-16), LONBERG N. ET AL.: XP002281113 retrieved from EMBL accession no. AR370100 Database accession no. AR370100 the whole document</p>	1-54
Y	<p>DATABASE EBI EMBL; Sequence 2 from US2002168397 11 April 2003 (2003-04-11), TSUJI, K. ET AL.: XP002281114 retrieved from EMBL accession no. AR264699 Database accession no. AR264699 the whole document</p>	1-54
Y	<p>DATABASE EBI EMBL; Sequence 4 from W08803145 16 February 1995 (1995-02-16), LIU, A.Y. ET AL.: XP002281115 retrieved from EMBL accession no. I05932 Database accession no. I05932 the whole document & W0 88/03145 A (ONCOGEN ; INT GENETIC ENG (US)) 5 May 1988 (1988-05-05)</p>	1-54
Y	<p>DATABASE EBI EMBL; Sequence 10 from W00213862 9 August 2002 (2002-08-09), GOLD, D.P. ET AL.: XP002281116 retrieved from EMBL accession no. AX473360 Database accession no. AX473360 the whole document</p> <p style="text-align: center;">-/--</p>	1-54

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Y	<p>& WO 02/13862 A (GOLD DANIEL P ; FAVRILLE INC (US); SHOPES ROBERT J (US)) 21 February 2002 (2002-02-21) -----</p> <p>DATABASE EBI EMBL; Sequence 36 from W09915696 26 January 2000 (2000-01-26), QIN, Y.: XP002281117 retrieved from EMBL accession no. A97536 Database accession no. A97536 the whole document & WO 99/15696 A (QIN YUFEN) 1 April 1999 (1999-04-01) -----</p>	1-54
Y	<p>DATABASE EBI EMBL; JH reporter probe from W09219775 24 November 1994 (1994-11-24), XP002281118 retrieved from EMBL accession no. A22452 Database accession no. A22452 the whole document & WO 92/19775 A (RAGGIO ITALGENE SPA) 12 November 1992 (1992-11-12) -----</p>	1-54
Y	<p>DATABASE EMBL 'Online! 21 December 2002 (2002-12-21), "Sequence 36 from patent US 6476198." XP002325887 retrieved from EBI accession no. EM_PRO:AR243947 Database accession no. AR243947 the whole document & US 6 476 198 B1 (KANG ANGRAY SINGH) 5 November 2002 (2002-11-05) the whole document -----</p>	1-54
Y	<p>DATABASE EMBL 'Online! 13 August 2003 (2003-08-13), "Novel Fab fragment libraries and method of using the same." XP002325888 retrieved from EBI accession no. EM_PAT:BD271410 Database accession no. BD271410 the whole document & EP 1 054 018 A (TARGET QUEST B.V) 22 November 2000 (2000-11-22) -----</p> <p style="text-align: center;">-/--</p>	1-54

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Y	<p>DATABASE EMBL 'Online! 9 August 1999 (1999-08-09), "PCR primer for human immunoglobulin C alpha gene." XP002325890 retrieved from EBI accession no. EM_PAT:E16974 Database accession no. E16974 the whole document</p>	1-54
A	<p>WHITE HARRY N: "Restriction-PCR fingerprinting of the immunoglobulin VH repertoire: Direct detection of an immune response and global analysis of B cell clonality" EUROPEAN JOURNAL OF IMMUNOLOGY, vol. 28, no. 10, October 1998 (1998-10), pages 3268-3279, XP002281079 ISSN: 0014-2980 the whole document</p>	1-54

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